

**WASHINGTON DEPARTMENT OF ECOLOGY  
MAIL STOP 47600  
OLYMPIA, WASHINGTON 98504**

**IN THE MATTER OF:**

**Weyerhaeuser Paper Company and  
The North Pacific Paper Corporation  
Newsprint Manufacturing Facility  
3401 Industrial Way  
P.O. Box 188  
Longview, WA 98632**

**PSD 97-01, AMENDMENT 1  
DRAFT APPROVAL  
OF PSD APPLICATION**

Pursuant to the U.S. Environmental Protection Agency (EPA) regulations for the Prevention of Significant Deterioration (PSD) in Title 40, Code of the Federal Regulations, Part 52, the Washington Clean Air Act 70.94 RCW and WAC 173-400-141, and based upon the complete Prevention of Significant Deterioration (PSD) Application submitted by the Weyerhaeuser Paper Company On December 1, 2003, and the technical analysis performed by the Department of Ecology (Ecology), Ecology now finds the following:

## FINDINGS

1. The North Pacific Paper Corporation (NORPAC) facility is a newsprint manufacturing facility which consists of three newsprint paper machines, a thermo-mechanical pulping (TMP) process, and a de-inking process. The two paper machines and TMP operations that comprise the NORPAC I and II projects are covered under this PSD approval. The No. 3 Paper Machine and de-inking process are part of the NORPAC III project, are not subject to PSD requirements, and are not part of this approval. The NORPAC I and II projects have the ability to produce many grades of newsprint at a combined production rate of 540,000 air-dried metric tons per year. Principal point sources of air contaminant emissions are:
  - 1.1 Startup Scrubber Vent;
  - 1.2 Bleach Tower Exhausts (2);
  - 1.3 TMP Decker Exhausts (2);
  - 1.4 No. 2 Spray Condenser Exhaust;
  - 1.5 Paper Machine No. 1 Vacuum Vent, Wet End Vents and Exhausts, and Dryer Vents, and
  - 1.6 Paper Machine No. 2 Vacuum Vent, Wet End Vents and Exhausts, and Dryer Vents.
2. In 1977, Ecology issued draft and final environmental impact statements (EIS) concerning the NORPAC I project. NORPAC submitted a Notice of Construction application to the Southwest Air Pollution Control Authority (SWAPCA) on February 1, 1978. On March 16, 1978, SWAPCA issued Order of Approval No. 78-326 allowing construction of the NORPAC I project. At that time, SWAPCA's Order of Approval was the

only state or local air quality permit or approval required to allow commencement of construction of NORPAC I.

3. NORPAC II essentially duplicated the NORPAC I project. In July 1979, Ecology issued a declaration of significance in regard to the NORPAC II, referring to the 1977 EIS for the NORPAC I project. NORPAC submitted a Notice of Construction application to SWAPCA in July 1979. On August 23, 1979, SWAPCA issued Order of Approval No. 79-475 allowing construction of the NORPAC II project. At that time, SWAPCA's Order of Approval was the only state or local air quality permit or approval required allowing commencement of construction of NORPAC II.
4. PSD-97-01 was issued on December 9, 1997. The emission limits were based upon the combined production of 540,000 Air Dried Metric Tons (ADMT) of newsprint per year. This permit accounted for 515,000 ADMT of normal brightness paper per year and 25,000 ADMT of high brightness paper. These production rates were based on the paper grade production mix anticipated at the time to satisfy future market demand for varying paper basis weight and brightness specifications. Thermo-Mechanical Pulping (TMP) fiber production required to support these paper production levels was projected to be 415,307 Bone Dry Metric Tons (BDMT) of normal brightness TMP pulp and 22,750 BDMT of high brightness TMP pulp per year. The permit effectively limited high brightness pulp and paper production as a percentage of total pulp and paper production, and limited total pulp and paper production based on projected grade basis weight mix.
5. Today's action does not involve a physical change to allow increased total or high brightness pulp and paper production. Rather, it allows for operating flexibility to produce increased volumes of high-brightness and high basis weight paper grades. These grades may now represent up to 100% of total production. Annual potential production rates for the highest production rate grades are 542,117 BDMT/year of TMP pulp and 623,685 ADMT/year of paper. Emission limits are based on these maximum potential production rates, rather than on the projected actual production rates for the grade mix anticipated to meet future market demand.
6. The Weyerhaeuser, Longview mill complex qualifies as a major source of air pollutants because it is listed as a major stationary source under Title 40, Code of the Federal Regulations, Part 51, Section 166, paragraph (b)(1)(i)(a) and has the potential to emit more than 100 tons per year of several pollutants.
7. This project qualifies as a major modification of the Weyerhaeuser, Longview mill complex because emissions of volatile organic compounds (VOC's) and carbon monoxide will increase by more than 40 and 100 tons per year respectfully.
8. The site of the modification is within an area designated Class II for the purposes of PSD evaluation under 40 CFR 52.21 as amended through January 1, 1995.

9. The site of the proposed modification is within an area, which is in attainment for all pollutants regulated by state and national ambient air quality standards.
10. The emissions of CO and VOC's from the major modification have "net significant decreases" and are therefore NOT subject to PSD review. A netting analysis was performed over the 5-year contemporaneous period immediately preceding the submittal of this application. After netting emissions of CO and VOC it was determined that emissions did not exceed the PSD significance rates. All the Emission reductions were made to be federally enforceable by the issuance of Emission Reduction Credits (ERC's). This analysis is shown in Table 1 below:

Table 1. Netting Analysis

Year	Project Name	Creditable Emissions Increases & Decreases (tpy)	
		VOC	CO
1998	East Powerhouse Shutdown	(170.00)*	(1,651.0)*
1998	Kraft Mill Modernization PSD Update	0.0	0.0
2000	Package Boiler 8N Shutdown	(0.03)**	(16.5)**
2000	NORPAC PM No. 1 Sectional Drive	1.9	0.0
2000	NORPAC PM No. 1 Flat Box	0.9	0.5
2000	Saltcake Receiving & Storage	0.0	0.0
2001	NORPAC Deink Improvement Project	0.9	0.0
2001	NORPAC PM No. 2 Dryer Improvements	1.0	0.0
2001	Kraft Optimization Project	3.9	0.0
2003	Request for Permit Change PSD-97-01	97.3	810.4
Net Emission Change		(64.1)	(856.6)
PSD Significance Level		40	100
Exceeds Significance Level		No	No
PSD Review Required		<b>No</b>	<b>No</b>

\* East Powerhouse ERC's were issued in Order No. DE98-AQ-1049

\*\* Package Boiler 8N ERC's were issued in Order No. DE00-AQIS-1427

11. The emissions of all other air pollutants from the modifications were subject to new source review by Ecology's Industrial Section.
12. A Best Available Control Technology (BACT) analysis was not performed because there was no net emissions increase in PSD pollutants.
13. This permit supersedes PSD-97-01 issued on December 9, 1997.
14. Visibility impairment will not be perceptibly increased in any Class I area.

116 15. Allowable emissions increases from the new and modified emissions units, in conjunction  
117 with all other applicable emissions increases or reductions (including secondary emissions),  
118 will not cause or contribute to air pollution in violation of:

119  
120 15.1 Any national ambient air quality standard.

121 15.2 Any applicable maximum allowable increase over the baseline concentration in  
122 any area.  
123

124 16. No noticeable effect on industrial, commercial, or residential growth in the Longview area is  
125 anticipated due to the project.  
126

127 17. Ecology finds that all requirements for PSD are satisfied and that as approved below, the new  
128 and modified emissions units comply with all applicable federal new source performance  
129 standards. Approval of the PSD application and notice of construction are granted subject to  
130 the following conditions.  
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## PSD APPROVAL CONDITIONS

1. VOC emissions from NORPAC I and II units shall not exceed 6,448 pounds per day when averaged over 30-consecutive days.
  - 1.1. Compliance with the daily VOC emission limit shall be assured by computing daily VOC emission rate from the NORPAC I and II units.
  - 1.2. Daily VOC emission rate shall be computed by summing daily production rates multiplied by the appropriate daily emission factors contained in *Table 2. NORPAC I & II VOC Emission Factors* of this permit. Such calculations shall account for all operations at each operating condition during each day of operation.
2. VOC emissions from the NORPAC I and II units shall not exceed 927.3 tons per year when averaged over any consecutive 12-month period.
  - 2.1. Compliance with the annual emissions limit shall be assured by the summation of monthly-calculated emission rates over the calendar year.
  - 2.2. Monthly emissions shall be calculated by multiplying monthly TMP and Paper Machine production values under each operating condition by the appropriate emission factors from *Table 2* then summing the products. Such calculations shall account for all operations at each operating condition during the calendar month.
3. CO emissions from the NORPAC II units (TMP II and Paper Machine No. 2) shall not exceed 891.4 tons per year when averaged over any consecutive 12-month period.
  - 3.1. Compliance with the annual emissions limit shall be assured by the summation of monthly-calculated emission rates over the calendar year.
  - 3.2. Monthly emissions shall be calculated by multiplying monthly TMP II production values under each operating condition by the appropriate emission factors from *Table 3. NORPAC TMP I & II CO Emission Factors* of this permit, then summing the products. Such calculations shall account for all operations at each operating condition during the calendar month.
4. Weyerhaeuser shall conduct source tests of the NORPAC I and II units for VOC and CO to be performed by an independent testing firm.
  - 4.1. The emission points tested shall include those tested in the 1994 emission evaluation program and serve as the basis for the refinement of emission factor summaries in Tables 2 and 3 of this permit.
  - 4.2. Source testing shall be conducted once every three years commencing within 180 days of achieving > 20% high brightness production but not later than 2005.
  - 4.3. Weyerhaeuser shall consult with Ecology to determine if the emission factors listed in Tables 2 and 3 of this permit should be updated.
5. The objective for this source testing is to verify the reasonableness of the emission factors developed in the 2002 emission evaluation program. Should there be a significant deviation in the emission factors developed from subsequent testing ( $\pm 20\%$ ), either Ecology or Weyerhaeuser may initiate a technical discussion on the need to amend the factors present in

Tables 2 and 3 of this permit, Ecology may require amendment of the emission factors in Tables 2 and 3.

6. All source tests shall be conducted in accordance with the appropriate methods set forth in Title 40 Code of the Federal Regulations, Part 60, Appendix A as amended through July 1, 1996, or later.
  - 6.1. Each performance test shall consist of three separate runs using the applicable test method, with the overall test result to be an arithmetic average of the results of the three test runs, in accordance with 40 CFR 60.8(f).
  - 6.2. A test plan shall be submitted for Ecology's approval at least 30 days prior to the testing.
  - 6.3. The initial tests and test methods shall include, but may not be limited to, the following:
    - 6.3.1. Sampling location and in-stack points as measured by Reference Method 1.
    - 6.3.2. Stack gas velocity and volumetric flow rate as measured by Reference Method 2.
    - 6.3.3. Carbon monoxide as measured by Reference Method 10.
    - 6.3.4. Volatile organic compounds, as measured by Reference Methods 25, 25A, or 25B, modified as necessary to handle high moisture content. Any moisture removed as a result of such modification shall be analyzed for VOCs, which shall be accounted for.
  - 6.4. Any deviation from the above test methods must be agreed to by Ecology in the test plan.
7. Weyerhaeuser shall maintain records of emissions calculations, which will include:
  - 7.1. The quantities of high brightness and normal brightness TMP pulp and paper produced during the month;
  - 7.2. The number of hours each month that pulp was produced while the Reboiler was down and the estimated quantity of TMP pulp produced during reboiler downtime;
  - 7.3. The approximate percentages of wood specie types pulped during the month; and
  - 7.4. The appropriate emission factors from Tables 2 and 3.
  - 7.5 Weyerhaeuser shall report to Ecology, in a manner approved by Ecology, the monthly cumulative total VOC and CO emissions, in units of the standard, in the "monthly air report," in accordance with the requirements of WAC 173-401-615.
8. Each occurrence of calculated emissions in excess of limits contained in this PSD approval shall be reported at least monthly within thirty days of the end of each calendar month to Ecology. The information shall include, but not limited to, the following:
  - 8.1. The time of the occurrence.
  - 8.2. Magnitude of the emission or process parameters excess.
  - 8.3. The duration of the excess.
  - 8.4. The probable cause.
  - 8.5. Any corrective actions taken or planned.
9. Weyerhaeuser shall submit to Ecology a report presenting the findings from a study that estimates VOC emissions from the de-ink mill and effluent treatment and sewer system

within 180 days of the effective date of this permit. The purpose of this study is to estimate VOC emissions from these sources.

10. Any activity that is undertaken by Weyerhaeuser or others, in a manner that is inconsistent with the application and this determination, shall be subject to Ecology enforcement under applicable regulations. Nothing in this determination shall be construed so as to relieve Weyerhaeuser of its obligations under any state, local, or federal laws or regulations.
11. Access to the source by the U.S. Environmental Protection Agency (EPA), Ecology, or local regulatory personnel shall be permitted upon request for the purpose of compliance assurance inspections. Failure to allow access is grounds for action under the Federal Clean Air Act or the Washington Clean Air Act.
12. Within 90 days of permit issuance Weyerhaeuser NORPAC shall identify operational parameters and practices that will constitute proper operation of each emission unit in NORPAC 1 or 2. These operational parameters and practices shall be included in an O&M manual for the facility. The O&M manual shall be maintained and followed by Weyerhaeuser NORPAC and shall be available for review by Ecology and EPA. Emissions that result from a failure to follow the requirements of the O&M manual may be considered credible evidence that emission violations have occurred. Ecology shall be notified whenever the manual is updated.

Reviewed by:

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Richard B. Hibbard, P.E.  
Project Engineer  
Air Quality Program  
Washington Department of Ecology

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Date

Approved by:

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Mary E. Burg, Program Manager  
Air Quality Program  
Washington Department of Ecology

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Date

**Table 2. NORPAC I & II VOC Emission Factors, Daily and Annual Emissions Rates**

<b>Equipment</b>	<b>Estimated Maximum Production Rate (daily)</b>	<b>Estimated Maximum Production Rate (yearly)</b>	<b>Emission Factor</b>	<b>VOC Emissions (Pounds per Day)</b>	<b>VOC Emissions (Tons per Year)</b>
TMP # 1	Pulp production, 830 (BDMT/day)	Pulp production, 271,059 (BDMT/year)	1.489 (lb/BDMT)	1,243	203.1
TMP # 1 Reboiler Down	Pulp production, 830 (BDMT/day)	Pulp production, 13,553 (BDMT/year)	0.241 (lb/BDMT)	200	1.6
TMP # 2	Pulp production, 800 (BDMT/day)	Pulp production, 271,059 (BDMT/year)	1.498 (lb/BDMT)	1,198	203.1
TMP # 2 Reboiler Down	Pulp production, 800 (BDMT/day)	Pulp production, 13,553 (BDMT/year)	0.241 (lb/BDMT)	193	1.6
PM # 1	Gross Product, 1,000 (ADMT/day)	Gross Product, 270,000 (ADMT/year)	1.661 (lb/ADMT)	1,661	224.2
PM # 2	Gross Product, 1,200 (ADMT/day)	Gross Product, 353,685 (ADMT/year)	1.661 (lb/ADMT)	1,993	293.7
<b>TOTAL VOC EMISSIONS</b>				<b>6,448</b>	<b>927.3</b>

**Table 3. NORPAC TMP II CO Emission Factors and Annual Emission Rates**

<b>Equipment</b>	<b>Estimated Maximum Production Rate</b>	<b>Emission Factor</b>	<b>CO Emissions (Tons per Year)</b>
TMP # 1	Pulp production, 271,059 (BDMT/year)	3.284 (lb/BDMT pulp)	445.1
TMP # 2	Pulp production, 271,059 (BDMT/year)	3.284 (lb/BDMT pulp)	445.1
PM # 1	360 (MMcuft/year)	3.45 (lb/MMcuft Natural Gas)	0.6
PM # 2	321 (MMcuft/year)	3.45 (lb/MMcuft Natural Gas)	0.6
<b>TOTAL NORPAC 1 &amp; 2 CO Emissions (Tons per Year)</b>			<b>891.4</b>